

What is claimed is:

1. A system for processing packets of information, the system comprising:
an ingress module including a LAC, the ingress module receiving a plurality
of packets of information from a first network, the ingress module determining the
5 type of each of the plurality of packets;
a route server module coupled to the ingress module, the route server module
sending a distributed processing request to the ingress module;
wherein the ingress module receives the distributed processing request and,
responsively, performs a first set of processing operations on selected ones of the
10 plurality of packets, the selected ones of the plurality of packets being of a first type,
and wherein the ingress module forwards others of the plurality of packets of
information to the route server module, each of the others of the plurality of packets
being of a type distinct from the first type; and
wherein said route server module receives the others of the plurality of packets
15 of information and performs a second set of processing operations on the others of the
plurality of packets of information.

2. The system of claim 1 wherein the first set of processing operations
includes forwarding the selected ones of the plurality of packets of information to an
20 egress module.

3. The system of claim 1 wherein the second set of processing operations
includes establishing a connection with an entity on the Internet.

4. The system of claim 1 wherein the first type is a data type.

5. The system of claim 1 further comprising an egress module, the egress
5 module being coupled to the ingress module, the egress module receiving the others
of the plurality of packets, the egress module routing the packets to the Internet.

6. A method comprising:

receiving a plurality of packets of information from a first network at an
10 ingress module, the ingress module including a LAC;

determining the type of each of the plurality of packets;

sending a distributed processing request from a route server module to the
ingress module;

receiving the distributed processing request at the ingress module and,
15 responsively, performing a first set of processing operations on selected ones of the
plurality of packets, the selected ones of the plurality of packets being of a first type;

forwarding others of the plurality of packets of information from the ingress
module to the route server module, each of the others of the plurality of packets being
of a type distinct from the first type; and

20 receiving the others of the plurality of packets of information at the route
server module and performing a second set of processing operations on the others of
the plurality of packets of information at the route server module.

7. The system of claim 6 wherein the first set of processing operations includes forwarding the selected ones of the plurality of packets of information to an egress module.

5 8. The system of claim 6 wherein the second set of processing operations includes establishing a connection with an entity on the Internet.

9. The system of claim 6 wherein the first type is a data type.

10 10. The system of claim 6 further comprising an egress module, the egress module being coupled to the ingress module, the egress module receiving the others of the plurality of packets, the egress module routing the packets to the Internet

11. A routing device comprising:

15 an ingress portion, the ingress portion receiving negotiation packets;
a route server portion coupled to the ingress portion including an LNS, the route server portion receiving the negotiation packets and completing a negotiation, the route server portion sending a distributed switching request message to the ingress portion upon the completion of a negotiation;

20 wherein the ingress portion receives the distributed switching request message and, responsively, sends a reply message to the route server portion; and

wherein the ingress portion upon the receipt of the distributed forwarding message processes subsequently received data packets.

12. The routing device of claim 11 wherein the ingress portion determines a forwarding equivalence class.

5 13. The routing device of claim 11 wherein the packets include labeling information and the ingress portion use the label information from the packet to determine an outgoing link.

10 14. The routing device of claim 11 wherein the ingress portion forwards all control packets to the route server portion.

15 15. The routing device of claim 11 wherein all MPLS LDP, CRLDP, or RSVP packets are routed to the route server portion.

16. A system comprising:
means for receiving a plurality of packets of information from a first network at an ingress module;
means for determining the type of each of the plurality of packets;
means for sending a distributed processing request from a route server module
20 to the ingress module;
means for receiving the distributed processing request at the ingress module and, responsively, performing a first set of processing operations on selected ones of

the plurality of packets, the selected ones of the plurality of packets being of a first type;

means for forwarding others of the plurality of packets of information from the ingress module to the route server module, each of the others of the plurality of packets being of a type distinct from the first type; and

means for receiving the others of the plurality of packets of information at the route server module and performing a second set of processing operations on the others of the plurality of packets of information at the route server module.

10 17. A computer readable medium having stored therein instructions for causing a processing unit to execute the following method:

receiving a plurality of packets of information from a first network at an ingress module;

determining the type of each of the plurality of packets;

15 sending a distributed processing request from a route server module to the ingress module;

receiving the distributed processing request at the ingress module and, responsively, performing a first set of processing operations on selected ones of the plurality of packets, the selected ones of the plurality of packets being of a first type;

20 forwarding others of the plurality of packets of information from the ingress module to the route server module, each of the others of the plurality of packets being of a type distinct from the first type; and

receiving the others of the plurality of packets of information at the route server module and performing a second set of processing operations on the others of the plurality of packets of information at the route server module.

- 5 18. A computer program for processing packets, the program comprising:
- first code for receiving a plurality of packets of information from a first network at an ingress module;
- second code for determining the type of each of the plurality of packets;
- third code for sending a distributed processing request from a route server
10 module to the ingress module;
- fourth code for receiving the distributed processing request at the ingress module and, responsively, performing a first set of processing operations on selected ones of the plurality of packets, the selected ones of the plurality of packets being of a first type;
- 15 fifth code for forwarding others of the plurality of packets of information from the ingress module to the route server module, each of the others of the plurality of packets being of a type distinct from the first type; and
- sixth code for receiving the others of the plurality of packets of information at the route server module and performing a second set of processing operations on the
20 others of the plurality of packets of information at the route server module.